

**A DETRITIVORE *TIPULA* (DIPTERA: TIPULIDAE)  
AS A SECONDARY HOST OF  
*POECILOGONALOS COSTALIS*  
(HYMENOPTERA: TRIGONALIDAE)<sup>1,2</sup>**

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**ABSTRACT:** *Poecilogonalos costalis*, a hyperparasitoid trigonalid wasp, was reared from a tachinid fly which had parasitized a *Tipula* larva. The use of a crane fly larva as a secondary host by the trigonalid represents the first reported detritivorous host. In addition, the discovery of *Poecilogonalos costalis* in Kansas extends its range significantly westward.

Wasps of the family Trigonalidae are recorded as hyperparasitoids of tachinid flies and ichneumonid or vespidae wasps which parasitize or prey on leaf-feeding larvae of Lepidoptera and Symphyta (Townes 1956; Carlson 1979). In 1985, I reared *Poecilogonalos costalis* (Cresson) from a puparium of *Allophorocera arator* (Aldrich) (Diptera: Tachinidae), which parasitized a larva of *Tipula* (*Triplicitipula*) sp., probably *flavoumbrosa* Alexander (Diptera: Tipulidae). The *T. flavoumbrosa* larva was collected in forest soil at the University of Kansas Natural History Reservation, 8.0 km NE of Lawrence, Douglas Co., Kansas, on March 18, 1985. In the laboratory, two tachinid larvae emerged from the *Tipula* and pupated on April 2, and the trigonalid adult emerged from one of the tachinid puparia on April 27.

Trigonalids oviposit near the margins of living angiosperm leaves or petals, and the eggs must be ingested by a caterpillar or sawfly larva before hatching (Clausen 1940). Further development of the trigonalid larva only occurs if the parasitoid host is present inside the secondary host. Larvae of *Tipula flavoumbrosa* feed in the upper levels of forest soil as shredders on fungi-conditioned, decomposing leaves and other litter (pers. obs.). Apparently, the trigonalid egg remained viable even as the leaf it was deposited on died and decomposed. Trigonalid egg viabilities of several months have been noted by Clausen (1940), presumably on living leaves. There is the additional possibility that the trigonalid oviposited directly on decaying litter, although this ovipositional site has not been noted in the few

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published observations of trigonalid oviposition. The present report represents the first of a trigonalid from a parasitoid whose host is a detritivore and not an herbivore. Additionally, the secondary host in this instance is a dipteran larva and not a lepidopteran or symphytan larva.

The record of *Poecilognathos costalis* from Kansas represents a significant westward extension of the previously known eastern and southeastern North American distribution (Ohio, Louisiana; Carlson 1979).

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#### CALL FOR NOMINATIONS FOR NEW MEMBERS OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

The following members of the Commission reach the end of their terms of service at the close of the XXIII General Assembly of the International Union of Biological Sciences to be held in Canberra in October 1988: Prof Dr. R. Alvarado (Spain; specialist field Echinodermata); Dr. G. Bernardi (France; Lepidoptera); Prof. C. Dupuis (France; Heteroptera) and Dr. L.B. Holthuis (The Netherlands; Crustacea). A further vacancy arises from the death of Prof. B.S. Zheng (People's Republic of China; Ichthyology).

The addresses and specialist fields of the present members of the Commission may be found in the *Bulletin of Zoological Nomenclature*, 44(1): 2-3 (March 1987). Under Article 3b of the Commission's Constitution a member whose term of service has terminated is not eligible for immediate re-election unless the Council of the Commission has decided to the contrary.

(Continued on page 170)